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FOREST AND RANGE
EXPERIMENT STATION

PROGRESS REPORT

DIVISION OF FOREST UTILIZATION RESEARCH

TROPICAL FOREST RESEARCH CENTER

October 1 to December 30, 1960

Summary

Several companies showed interest in the use of local woods for making their products. While the local volume is small and generally low-grade, the wood of some species has desirable properties. Our pilot plant comprised of a bolter saw, dry kiln and treating plant is helping to foster this increased use. About 70 farmers attended three demonstrations on fence post treatment this past quarter. Technical assistance was given to several furniture and millwork manufacturers on plant layout, finishing, and wood-moisture problems.

Wood Use Development

There was an increased interest this past quarter in the use of local woods by industry. Of the new developments in the use of native woods, that of Torneadora Automática para Maderas, located at Juana Díaz, is perhaps the most promising. This factory is now using parandé pine to make paint brush handles, but they desire to use native hardwoods. They plan to use 40 M board feet yearly, and they can use mixed species with specific gravities from .35 to .55. They plan to install their own sawmill. We provided them with roble (Tabebuia heterophylla), laurel avispillo (Nectandra coriacea), laurel geo (Ocotea portoricensis), maría (Calophyllum antillanum), and tabonuco (Dacryodes excelsa), which were suitable for their needs. Wood of yagrumo hembra (Cecropia peltata) and African tulip (Spathodea campanulata) proved unsatisfactory because of the low density and open grain. Guaraguo, while not tested, should prove satisfactory.

The Exotic Wood Products Company of Camuy is a new firm that will start manufacturing novelty items in February. Maldonado and Englerth have been advising them on the properties of local species, wood-moisture problems, and plant layout. They plan to use local species as much as possible, and novelty items made at the Center for such purposes were furnished them for display.

The Antilles Furniture Corporation of Hato Rey is one of the better furniture factories on the island. We are cooperating with them in the use of local woods for fine furniture, and the first venture will be the use of locally-grown teak for modern pieces. We made arrangements to supply them with 2 M board feet of teak, cut and dried by the Center as dimension stock. With this initial start, we plan to furnish them with other suitable native woods for the same purpose.

The Commonwealth in its "Operation Bootstrap" is stressing more local industry, and Englerth met with Mr. Jean Barroux of the United Nations Labor Relations, and Mr. Felix Bravo and Mr. Ramón L. Colón, of the Social Programs of the Commonwealth Small Industries Administration in this regard in December. They are interested in the establishment of some small wood-using industries, and we can help by giving them information on species as well as supplying them with small amounts of lumber for trial.

The Puerto Rico Millwork Corporation are interested in using some local wood in their manufacture of doors and other millwork items. They require clear lengths up to 10 feet which may present a problem.

Some of this increased interest can be attributed to our tests with local woods made in the pilot plant of the Center.

Preservation

Increment cores from seven treated piling installed a year ago at the Coast Guard dock in San Juan were obtained in November for the Forest Products Laboratory for chemical analysis of the creosote present. The Navy replaced two piling at their dock which were damaged by mechanical breakage. A sample of one of the two piling, which were greenheart, was sent to the FPL to show damage by marine borers after five years of service.

The "graveyard" post plots at Cambalache and Guavate were examined in October after 18 months in service. The Tropical Forest Note No. 5 "The Service Life of Untreated Posts in Puerto Rico After One Year in Test" was issued in October. These Notes are published in both Spanish and English.

Three fence post treatment demonstrations were given this past quarter in cooperation with the Agricultural Extension Service and Fomento. The first was held on the farm of Carlos Aimat near Cabo Rojo, the second at the Ulrich Foundation at Aibonito, and the third at the farm of Antonio Juan Mayol near Adjuntas. A total of 70 persons attended, and as a result some of the farmers plan to treat their posts. Mr. Victor López, of Fomento, is directly concerned with the promotion of local industry and is cooperating with us in the establishment of commercial plants. We issued a mimeographed prospectus "Prospects for Commercial Preservative Treatment of Fence Posts in Puerto Rico" for this purpose.

Virgin Islands

In the utilization of West Indies mahogany in St. Croix, open-grown trees sometimes contain bolts too short to saw on conventional mills. These short bolts, ranging in diameter from 8 to 16 inches, are left in the woods to rot. Usually these bolts have highly priced crotch wood. Thirty-two of these bolts containing about 800 board feet of wood, were shipped to Puerto Rico for conversion tests on our bolter saw. With Robert Nobles of the Virgin Islands Forestry Program, we plotted all external indicators on the bolts, cut the bolts into 4/4 lumber, and photographed all bolts and lumber. They have been selling such lumber for 50 cents per board foot. The bolter saw made possible the utilization of these bolts.

Tropical Forestry Training Course

The annual Tropical Forestry Training Course was held in October, November, and December with an attendance of 18 foreign trainees. Ten days were devoted to utilization in November, and most students felt that this was too short a time for this important subject.

Seasoning

Cooperation with Fomento continued at an increased rate this past quarter with the addition of Edwin Maldonado to the staff. He advised José M. Conde, of Fomento, on plant layouts and general utilization practices for millwork and furniture plants, and Enrique Martinez, of the same organization, on the installation and reorganization of machinery of a furniture plant following a fire. He recommended new methods and improvements to the furniture plant, Ebanistería Elam at Carolina. The Commonwealth Furniture Corporation was assisted in gluing techniques and advised as to the proper method of printing a mahogany-texture pattern on Wolmanized treated paraná pine.

Miscellaneous

Englerth and Maldonado lectured to the industrial art students of the University of Puerto Rico on wood utilization in Puerto Rico in October.

Our wood-working shop is being reorganized for more efficient use of available space, and a dust-collecting system is being planned.

Visitors

Damian Folch - Exotic Wood Products Company, Camuy
Esteban Bakoczy - Torneadora Automática para Maderas, Juana Díaz
José M. Conde - Engineering Officer, Economic Development
Administration of Puerto Rico

Jorge J. Rosado - Chief Engineer, Economic Development Administration
of Puerto Rico